RANCHO SANTA ANA BOTANIC GARDEN
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COMAROSTAPHYLIS DIVERSIFOLIA PLANIFOLIA

SUMMER-HOLLY

1943

RANCHO SANTA ANA BOTANIC GARDEN
of the
NATIVE PLANTS OF CALIFORNIA
Santa Ana Cañon, Orange County, California
Established 1927 in Memory of
JOHN W. BIXBY

COMAROSTAPHYLIS DIVERSIFOLIA PLANIFOLIA
SUMMER-HOLLY

Ericaceae Heath Family

Rounded, evergreen shrub or small tree 6-20 ft. high, usually with several trunks to 6 in. in diam., arising from a basal platform sometimes 3 ft. across. Bark of branches gray-brown, exfoliating in late spring or early summer leaving a dark brown, fairly smooth, but not polished surface, that of branchlets brown and pubescent. Leaves alternate, 6-8 aggregated at ends of branchlets; petioles $\frac{3}{8}$ in. long, lightly hairy; blades coriaceous, elliptic to ovate or obovate, about 2 in. long, plane, margins serrulate, bright green and glabrous above, gray beneath, covered with short hairs, most of which disappear in age. Flowers white, in racemes, arising from terminal buds; external floral parts hairy; racemes 3-4 in. long in flower, erect or spreading, bearing 25-40 flowers on pedicels to $\frac{3}{4}$ in. long, each subtended by a narrow, greenish-white bract; calyx 5-parted, of nearly distinct, narrow sepals, persistent in fruit; corolla urnshaped, $\frac{1}{4}$ in. long, with 5, very minute lobes; stamens 10, less than one-half as long as corolla, filaments dilated at base, hairy, anthers 2-celled, opening by terminal pores, bearing a pair of reflexed, awn-like appendages; ovary 5-celled, densely hairy, set on a green disc, style single, stigma undivided, reaching nearly to summit of corolla; fruit a drupe-like, dark red berry nearly $\frac{1}{4}$ in. in diam., surface warty or papillose, fleshy portion granular, covering the several-celled, fused, spherical stone; style persistent in fruit. In germination usually but one seedling develops from each stone; cotyledons appear above ground, are foliar, entire, ovate, about $\frac{1}{4}$ in. long; next few leaves coarsely serrate, less than $\frac{1}{2}$ in. long. Flowers March and April; fruits August and September.

The genus *Comarostaphylis* (from two Greek words meaning *Arbutus* and grape) was proposed in 1837 by J. G. Zuccarini (1797-1848, professor at Munich) and consists of 15-20 species of North America, but mainly Mexico and one species in California. This group is sometimes regarded as a part of the genus *Arctostaphylos* (Manzanita), but is separated largely on its warty fruits in which the stone consists of a few firmly united carpels. In many respects the plants are much more like some species of *Arbutus*.

Comarostaphylis diversifolia planifolia (Latin for plane and leaves) was described as a new variety in 1936 by Prof. W. L. Jepson (greatest living authority on California native plants, and Professor of Botany at the University of California for more than a generation), based upon specimens he had collected in 1908 in Swain Cañon, Santa Catalina Isl. In 1884, Dr. C. C. Parry (1823-1890, American botanist) described a plant from Jamul Valley, San Diego Co., under the name of *Arctostaphylos arguta* var. *diversifolia* (Latin for diverse and leaves); in 1886, he concluded that his plant was a distinct species and called it *A. diversifolia*. Prof. E. L. Greene, in 1887, transferred it to *Comarostaphylis*. For many years the plants of the California islands and

the mainland were all regarded as a single entity, but, as Prof. Jepson has pointed out, the two are distinct. Those of the mainland from Santa Barbara Co. to Baja California are typical *C. diversifolia,* and have revolute-margined leaves. Plants of Santa Catalina, Santa Cruz and Santa Rosa Isls. are variety *planifolia,* with a more luxuriant growth habit and larger leaves which are nearly plane.

We are familiar with *C. diversifolia planifolia* in the wild only on Santa Cruz Isl., where we saw and studied it in full bloom late in March, 1932. One individual which we observed, grew in a semishaded spot, at about 1500 ft. elevation, on the edge of a pine forest; it was a small tree 20 ft. high, 25 ft. spread, had several trunks about 6 in. in diam., arising from a basal platform or root-crown 3 ft. across, the latter indicating that the plants are capable of regenerating after a fire, and that they might be valuable for pipe burls were they not so rare. In September, 1932 we again visited Santa Cruz Isl. and were fortunate in finding the plants bearing a splendid crop of ripe fruits. At that time many of the sheltered, rocky canyon sides were dotted with the large shrubs heavily laden with their dark red fruits. The daughter of the Claire family, who then owned most of the island, had been struck by the beauty of these plants, and had named them Summer-Holly. Although they are not related to true holly, it is an apt name, which we brought back to the mainland, and is perhaps preferable to Mock-Arbute, a name sometimes used.

We have grown Summer-Holly since 1932, when we obtained seeds on Santa Cruz Isl. Seeds should be planted in the late fall in a well prepared seed flat filled with sandy loam and leafmold. The first potting is not until the plants are several months old, but thereafter they grow rapidly and should be transferred to gallon cans before they become the least bit root-bound. By fall they will be 8-12 in. high and are ready to set out. A semishady site in coarse, well-drained soil is preferable, but we have some plants that have done well in heavy adobe in full sun. The plants do not begin to flower until several years old, or when about 4-5 ft. high. Plants in full sun, flower more profusely than those in shade, but do not have such glossy, deep green foliage. In August and September the 5-6 in. clusters bearing 10-20 dark red fruits often cover the bushes and are as pleasing as the flowers in spring. Our largest plants are now about 14 ft. high, and give every indication of eventually growing as large as any we have seen in the wild. They receive an occasional irrigation during the summer months, but are comparatively drouth-resistant.

Summer-Holly looks like the Strawberry-Tree (*Arbutus Unedo*), which is commonly cultivated, but differs in a superficial manner in having smaller fruits. Tests in private gardens in Orange Co. over a period of 6 years indicate that the plants will thrive in average gardens. We suggest its use in any of the coastal or foothill sections of California. We do not feel that it has been sufficiently tested in the hot interior, but believe that it will probably do well if planted in a partially or well shaded situation.

CARL B. WOLF

RANCHO SANTA ANA BOTANIC GARDEN

Dedication of Garden Foundation to the Board of Trustees for the Rancho Santa Ana Botanic Garden of the Native Plants of California:

"THE NATURE, OBJECT AND PURPOSE OF THE INSTITUTION HEREBY FOUNDED AND TO BE MAINTAINED HEREUNDER.

ITS NATURE: A botanic garden of the native plants of California, herbarium and botanical library, containing living and/or preserved specimens of trees, plants and flowers native to California, and literature relating thereto.

ITS OBJECT: The preservation and improvement of the property now transferred and such property as may hereafter be transferred to the Trustees for those who not only wish to enjoy, but to study, assembled in one accessible locality, native California plants; and for the advancement of science and education with reference to plant life indigenous to the State of California.

ITS PURPOSES: (a) An institution founded primarily for scientific research in the field of local botany.

(b) To preserve the native California flora, try to replenish the depleted supply of some of the rarest plants which are rapidly being exterminated, and bring together in a comparatively small area as complete a collection of the rich store of native California plants as can be grown in this southern section of the state, thereby promoting the general welfare of the people of the state by providing the means for encouraging and carrying on the above mentioned activities in said state and by doing such other things as may be necessary and desirable to carry out the objects hereof."

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